

AUGUST 10, 1987

A1250-1  
8/14/87

CHEMICAL & ENGINEERING

# NEWS

0511179C097 9 K AR6532SL 1  
CONGRESSIONAL INFO SERV-SRI  
4520 EAST WEST HWY SUITE 800  
SRI ACQUISITIONS  
BETHESDA MD 20814

## Biotechnology

Agricultural research moving  
from lab to field

Page 9

## News of the Week

■ **U.S. technology trade with China is impeded by barriers in both U.S. and China, resulting in lower exports and the loss of sales to foreign competitors.** Page 6

■ **U.S. and Japan get ready to negotiate renewal of their science and technology agreement and tackle sensitive issues dealing with national security and commercial relations.** Page 7

■ **Himont, world's largest producer of polypropylene, unveils aggressive plans for future growth.** Page 7

■ **U.S. tightens controls on exports of chemicals that can be used for chemical warfare by extending list of those banned for export to Iran, Iraq, and Syria.** Page 8

■ **Month-long workshop to develop materials for elementary school science teaching draws praise from participants.** Page 8

Cover: Calgene scientist checks plants being regenerated by cell and tissue culture methods. Photo by Penina Meisels, copyright 1986

Letters 4

### Concentrates

Business 15

Government 18

Science/Technology 24

### The Departments

People 29

Newscripts 44

## Business

**Emphasis on profitability over sales** is key to Monsanto's long-term strategy for pharmaceuticals, crop chemicals, animal sciences, high-value plastics, fibers, and resins. Page 17

## Government

**White House report recommends use of alternative fuels**—methanol, ethanol, MTBE, and compressed natural gas—to combat air pollution effectively and economically. Page 19

## Technology

**Explosives' shock sensitivity** may depend on stability of carbon-carbon bonds in aromatic rings and on hydrogen bonding. Page 25

**New micropositional electrical probe** can measure contact resistance on a microscopic scale, has superconductivity application. Page 26

**Chemical plant safety research** is made available by the American Institute of Chemical Engineers. Page 26

## ACS Focus

**Congressional fellowship program** enables participating ACS members to broaden their professional views by working for one year as a special legislative assistant on Capitol Hill. Page 27

## ACS News

**Unemployment among ACS members last year** was lower than reported in C&EN's annual salary survey; Project SEED receives a \$250,000 bequest; and ACS voices support to Congress for two bills. Page 28

## News Focus

**Agricultural biotechnology products** ranging from animal vaccines, to microbial pesticides, to herbicide-resistant plants move toward the marketplace, with the potential to revolutionize the practice of agriculture. Page 9



## Member unemployment last year lower than reported

Only about half as many chemists who are members of the American Chemical Society actually were out of work sometime last year as was indicated in C&EN's annual report on the economic status of ACS members (C&EN, June 29, page 33).

Initial data from the survey of ACS members indicated that 9% of chemists had been jobless sometime during 1986, including 8% of the men and 13% of the women. The preliminary survey results also had indicated that 12% of chemists with no more than a B.S. degree, 10% of those with an M.S., and 7% of Ph.D.s had had a spell of unemployment during the year.

A closer look at the survey results, made since C&EN published them, now indicates that this degree of unemployment probably is about twice as high as was actually the case. This year's survey is the first to have asked whether respondents were without work any time during the previous year, rather than just at the time the survey was taken last March. Inconsistencies between answers to that question and others in the survey suggest that several respondents misread the question and reported that they had been unemployed when actually they were working throughout the year. For example, many respondents who reported that they had been unemployed sometime during 1986 also indicated that they have worked for their present employer at least since the beginning of 1986.

Adjusting the data to eliminate these apparently inaccurate responses indicates that only 4% of ACS member chemists, rather than 9%, were without jobs sometime during 1986. For men, the figure also is 4%, but for women it is 8%; 7% of B.S. chemists, 5% of those with an M.S., and 3% of those with a Ph.D. were unemployed sometime during 1986, the revised results show.

Of those chemists who were unemployed at any time in 1986, too, fewer were jobless for more than six months than was suggested by the initial survey results. For example, only 21% of all chemists who were out of work sometime during the year were unemployed for between seven and 12 months (rather than 38%, as reported by C&EN). For men, 23% were unemployed for more than six months (rather than 40%); for women, 16% (rather than 32%). In addition, 18% of B.S. chemists (rather than 32%), 19% of M.S. chemists (rather than 39%), and 25% of Ph.D.s (rather than 43%) were unemployed for more than six months. At the same time, the figures for various groups of chemists who were without a job for six months or less actually are in all cases 20 to 30% higher than previously published in C&EN.

*David Kiefer, Washington*

## Project SEED receives \$250,000 bequest

Project SEED, ACS's career development program for economically disadvantaged high school students, has received a \$250,000 bequest from the estate of Horace H. and Thelma A. Selby.

The ACS Committee on Project SEED plans to decide how to use the funds when it meets during the society's national meeting later this month in New Orleans. A program spokeswoman says, however, that some sort of Selby memorial fund will be created, possibly to support a type of activity not undertaken by Project SEED before.

Long-time contributors to Project SEED, the Selbys both pursued chemically related careers in the San Diego area. Horace Selby, an ACS member since 1928, died in May

1986, and his wife, Thelma, died this past May. The couple had no children. Both were active in community affairs, giving freely of their talent and finances, according to friends.

Horace Selby, born in 1906 and described by a long-time friend as "brilliant," studied chemistry at the University of Wyoming for two years in the mid-1920s but did not obtain a degree. He was general manager for American Agar Co. of San Diego during the early 1940s, when he helped develop a source of agar for the Allies when the then-current supply was shut off by Japan. (Agar is a gelatinous substance extracted from certain algae and used in a variety of products, but primarily as a culture medium for bacteriology.) According to one source, because of Selby's efforts, the company was able to supply 90% of the Allies' agar needs.

Also during World War II, Selby formed his own company to manufacture finely ground prisms for use in the Allied war effort. Selby's prisms found use in optic systems in tanks and airplanes used during the war. The manufacture of prisms, in the basement of his house, continued up to the time of his death.

Thelma Selby, a chemical engineer, worked with her husband at American Agar and shared many of his interests. In addition, she created a sizable estate through her personal skills in financial markets. Among her accomplishments is a cookbook with recipes based on agar.

*Ernest Carpenter, Washington*

## ACS offers support for two bills

In recent weeks the American Chemical Society has informed appropriate members of Congress of its support for two bills. One, H.R. 1905, would provide a mechanism for revitalizing university research facilities. The other, H.R. 1692, would allow an individual a permanent tax exemption for employer-provided educational assistance.

In a letter to Rep. Robert A. Roe (D.-N.J.), chairman of the House